



1/6

FIG 1
Prior Art

After Hard Mask Open
(Initial HM angle reducing because of side etching)

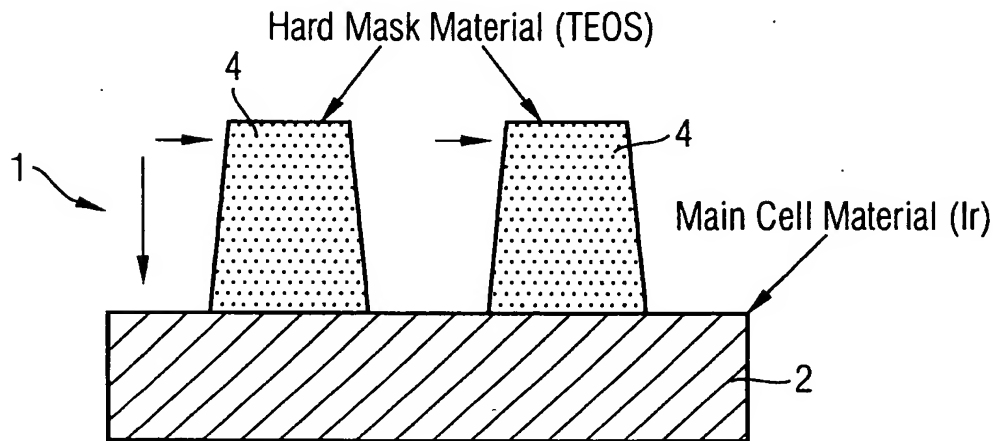
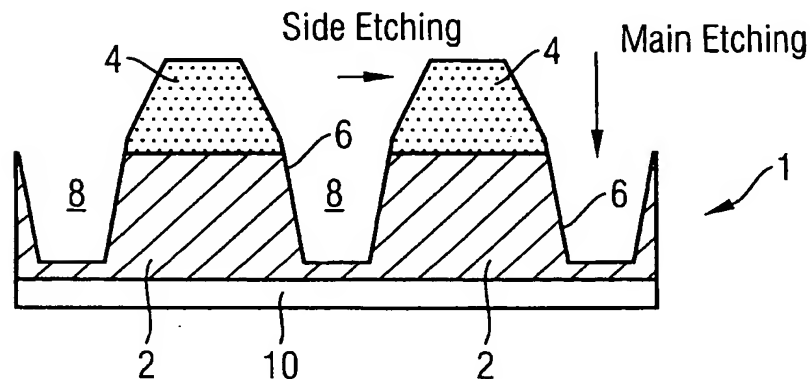
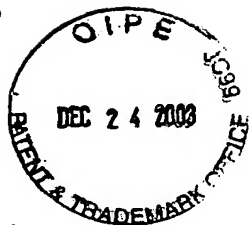


FIG 2
Prior Art

During Cell RIE
(HM angle further reduce because of side etching)





2/6

FIG 3A

Before main etching
(hard mask with a "hard shell", vertical shape)

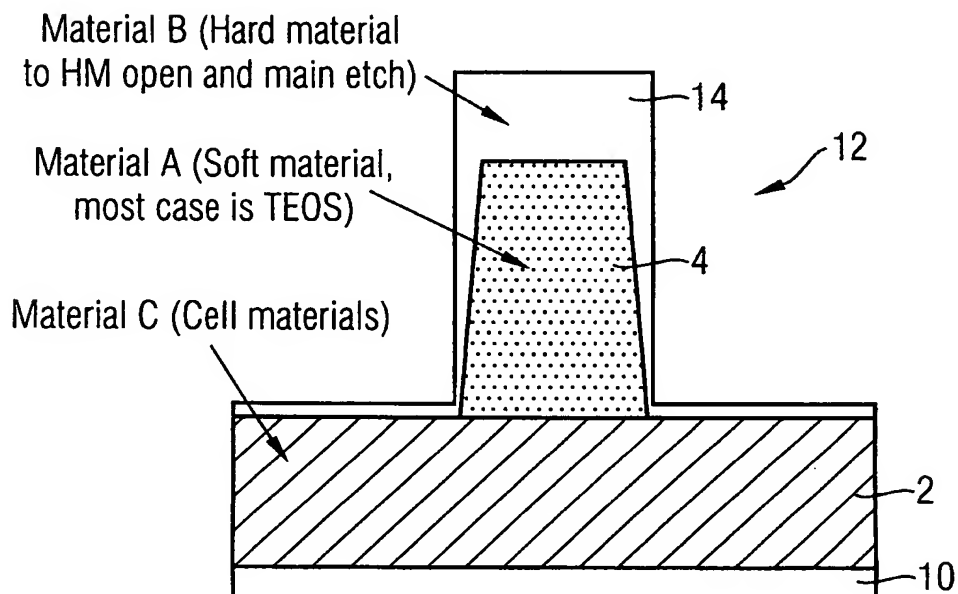
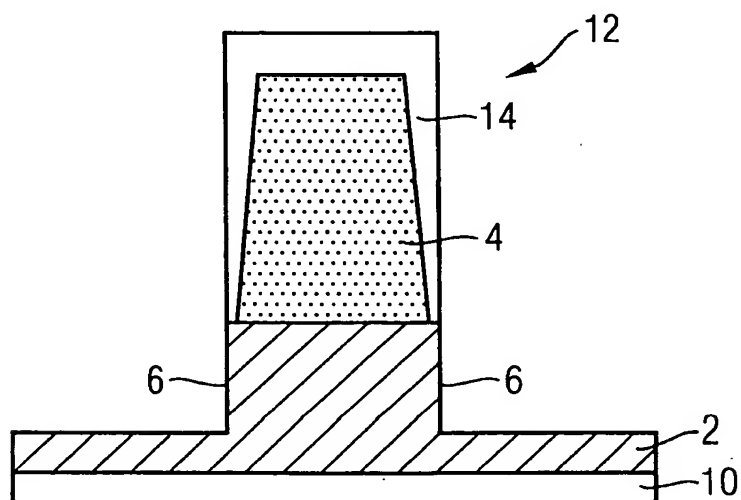
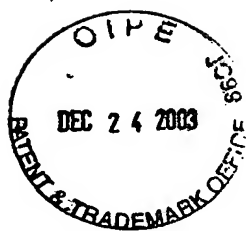


FIG 3B

During main etching
(hard mask shape not change because of the shell)





3/6

FIG 4

Before hard mask open

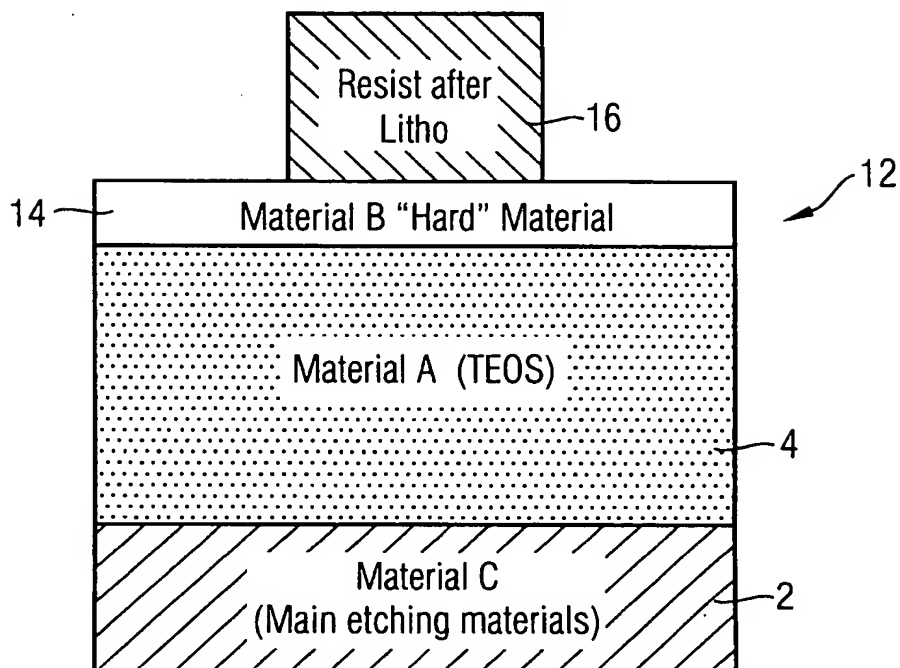
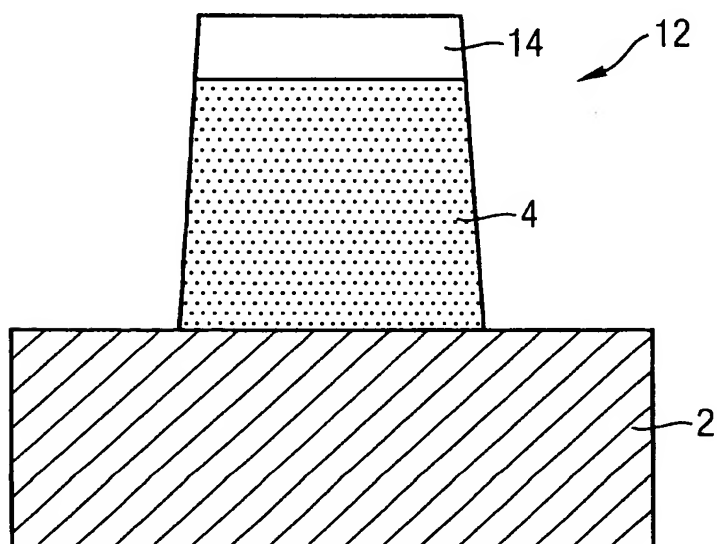


FIG 5

After hard mask open





4/6

FIG 6

Additional hard material deposit
(Before main etching)

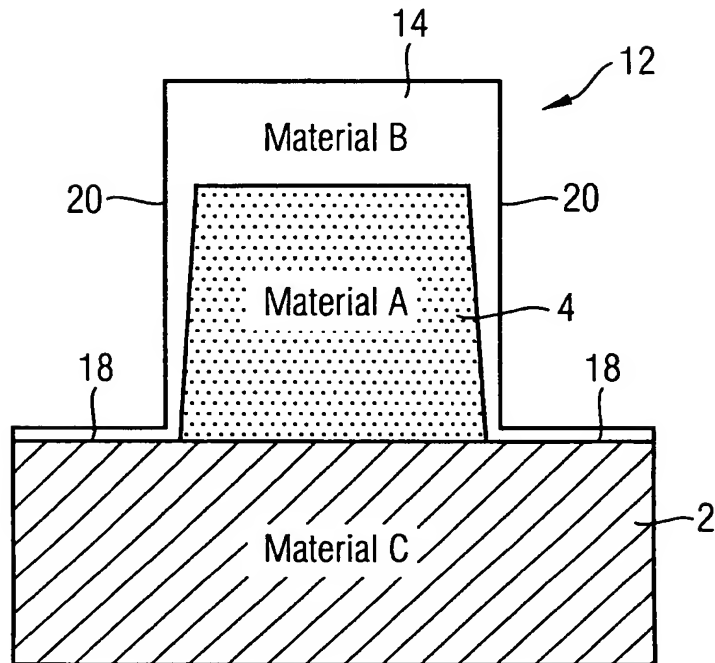
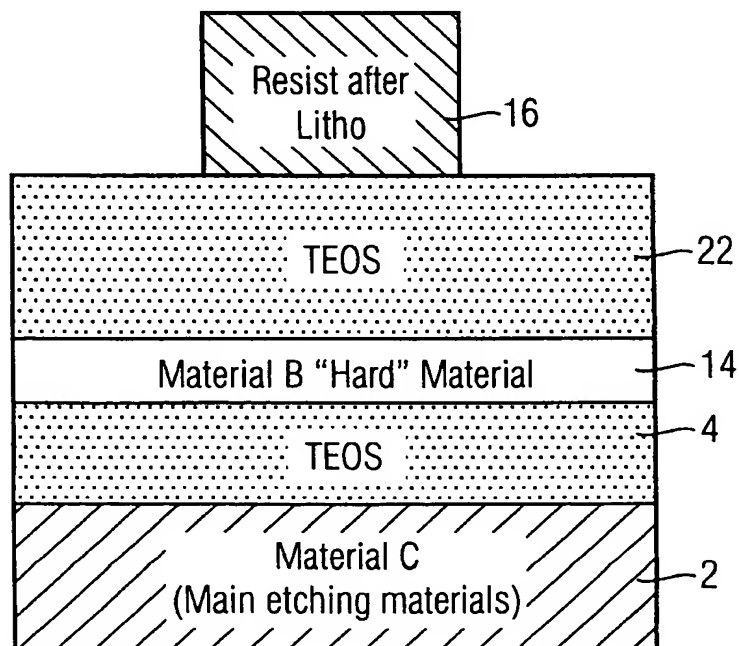


FIG 7

Before hard mask open





5/6

FIG 8

Before etching material B

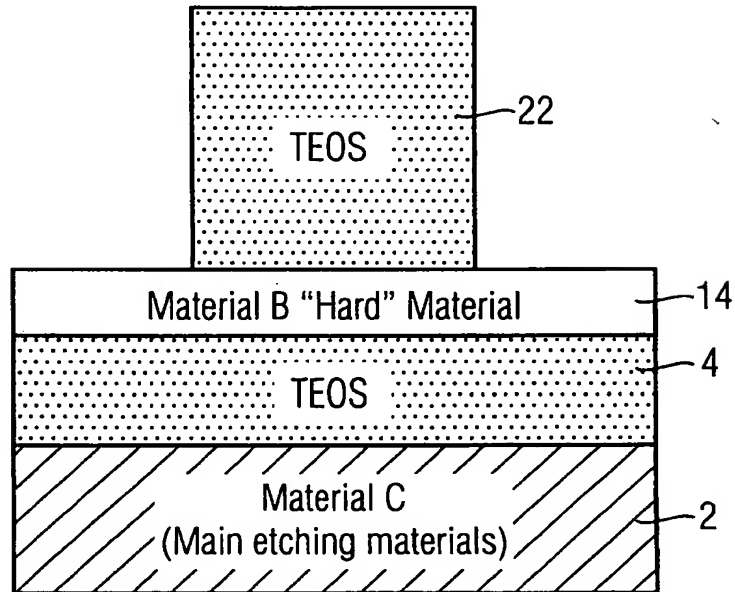
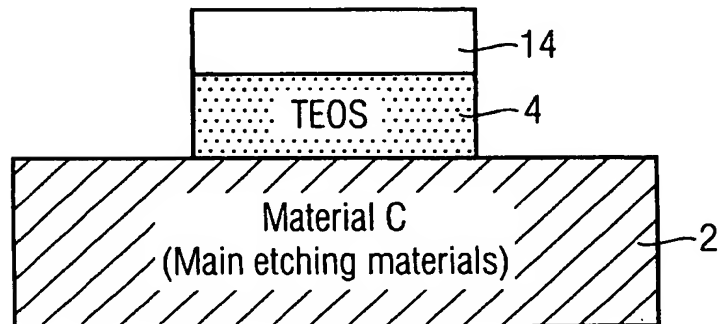


FIG 9

Before material B deposit





6/6

FIG 10

After material B deposit

